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Attorney Docket No. 15966-703 (Cura-203)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Padigaru, *et al.*
SERIAL NUMBER: 09/800,321 EXAMINER: Misook Yu
FILING DATE: March 5, 2001 ART UNIT: 1642
FOR: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.132

I, Michael Jeffers hereby declare and state as follows:

1. I am employed by CuraGen, Inc., the assignee of this application. My title is Group Leader. I received a Ph.D. in Biomedical Sciences in 1993 from the New York University Medical Center . I was a post-doctoral fellow in the laboratory of Dr. George Vande Woude at the National Cancer Institute from 1993 to 1999.

2. I have read, and am familiar with, the contents of the United States Patent Application entitled "Novel Proteins And Nucleic Acids Encoding Same", serial number 09/800,321, which was filed March 5, 2001. I understand the pending claims are directed to a polypeptide comprising SEQ ID NO:4.

3. I am aware that the Examiner has issued an Office Action dated July 3, 2003. In particular, I understand that the Examiner has rejected the pending claims under 35 U.S.C. §§ 101 and 112, contending that the pending claims are not supported by either a specific and substantial asserted utility or a well-established utility.

4. I make this declaration to rebut the Examiner's assertion, with which I do not agree. It is my belief and professional scientific determination that the

claimed compositions have a specific and substantial utility due to the following facts.

5. I have performed, or have had performed under my supervision, experiments detecting expression of the protein SEQ ID NO:4. FACs analysis was performed on T47D, MCF-7, MDA-MB-231 and OVCAR-3 cell lines which exhibited expression of the nucleic acid encoding polypeptide SEQ ID NO:4 by RTQ-PCR. The ACHN cell line, which expresses little or no nucleic acid encoding SEQ ID NO: 4 as determined by RTQ-PCR, served as a negative control. Cells were washed with Ca and Mg-free 1X PBS (Media Tech, MT 21-040-CV) and removed from plates using Versene (Invitrogen 15040-066). Cells were washed twice with ice-cold FACS buffer (1X PBS, 4% FBS) and resuspended in 100μL of antibody at various concentrations (5, 2, and 1 μg/mL). Anti-NOV XX antibody was affinity-purified rabbit polyclonal antibody generated following immunization with a peptide corresponding to amino acid residues 87-97 of SEQ ID NO: 4. Purified rabbit immunoglobulin served as a negative control. Cells were mixed and incubated at 4°C for 30 minutes. After washing cells twice with 1 mL ice-cold FACs buffer, PE-conjugated goat anti-rabbit secondary antibody (Jackson ImmunoResearch; Cat# 111-036-017) was added at a dilution of 1:100 and cells were incubated at 4°C for 30 minutes. Cells were then washed twice with 1 mL ice-cold FACS buffer and fixed with 400 μL 1% formaldehyde in PBS (Sigma F 1635). Analysis was performed using a FACSCalibur™ flow cytometer (Becton Dickinson, Franklin Lakes, NJ).

6. Results are presented in Table 1. Breast cancer cell lines T47D, MCF-7 and ovarian carcinoma cell line OVCAR-3 were found to express polypeptide SEQ ID NO:4 as detected by anti SEQ ID NO:4 polyclonal antibody. Specifically T47D expressed SEQ ID NO:4 at a level resulting in a GeoMean shift of 29.2 as compared to 7.6 for control staining. MCF-7 showed expression at 10.3 compared to 4.8 and OVCAR-3 expression

was measured at 16.8 compared to 12.7. The ACHN cell line which was previously shown to not express nucleic acid encoding SEQ ID NO:4, also did not show evidence of expression of polypeptide SEQ ID NO:4 as the GeoMean measured for cells treated with anti-SEQ ID NO:4 antisera was 7.3 compared to 4.9 for control preparations.

7. These results support the previous results and show that particular cancer types differentially express the SEQ ID NO:4 polypeptide which is therefore useful for differentiating such diseased cells from others. Thus, it is my opinion and belief that the Examiner should withdraw the rejection and allow the pending claims.

8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18, United States Code, and that willful false statements may jeopardize the validity of this application and any patent issuing therefrom.

Michael Jeffers, Ph.D.

Signed at New Haven, CT
this 30th day of Dec, 2003

TABLE 1

Cell line:		T47D	MCF7	OVCAR-3	ACHN
% Relative RNA expression		3.2	100	8.1	0
Antisera:					
Secondary antisera only (control)		11.3	3.1	10.8	8.1
Rabbit IgG (negative control)	5 ug/ml	7.6	4.8	12.7	4.9
Anti SEQ ID NO:4	5 ug/ml	29.2	10.3	16.8	7.3

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Padigaru et al		
SERIAL NUMBER:	09/800,321	EXAMINER:	Misook Yu
FILING DATE:	March 5, 2001	ART UNIT:	1642
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Mail Stop RCE
Commissioner for Patents
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Revocation and Granting of A New Power of Attorney

The above-captioned application for United States Letters Patent is Assigned to CuraGen Corporation by assignment recorded in the United States Patent and Trademark Office on October 2nd 2001, and recorded at reel 012217, frame 0221.

Assignee hereby terminates any and all prior Powers of Attorney granted in the above-captioned patent application and any and all patent applications claiming a priority from such application. Assignee hereby grants a power of attorney in this application to:

WENDY DAVIS, Registration No. 38,427

KAUSALYA SANTHANAM, Registration No 53, 552

GEORGE M. YAHWAK, Registration No. 26,824.

Please address all correspondence in this matter to:

Intellectual Property
CuraGen Corporation
555 Long Wharf Drive, 9th fl
New Haven, CT 06511

Respectfully submitted,

January 5th 2004

George M. Yahwak
Director, Intellectual Property
CuraGen Corporation